DEPARTMENT OF COMPUTING

Faculty of Science and Engineering

MACQUARIE University

Information and Computing Sciences

HIGHER DEGREE RESEARCH - 2017

From research into data science, internet of things, cyber security, intelligent virtual agents to service computing and mobile computing, Macquarie's information and computing science researchers are taking on the grand challenges that our society is facing nowadays.

Our location in the heart of Australia's largest high-tech precinct facilitates collaborative research projects with industry that seek bold solutions for national and global challenges.

High-profile industry partners include the Australian Signals Directorate, BCS Online, CSIRO, Datacom, Defence Science and Technology Group, EMC, Holocentric, Honeywell, Huawei, IBM, Microsoft and Optus.

Recently we collaborated with Optus Business to launch the $10 million Optus Macquarie University Cyber Security Hub. The objective is to help businesses and government raise the awareness of the increasing cyber threats and develop effective methods to protect from security threats through research, professional training and consultancy services provided to the private sector and government agencies.

Our renowned researchers – including a Fellow of the Association for Computational Linguistics, and an ARC Future Fellowship holder – have made major contributions to the ARC Research Networks in Human Communication Science and Enterprise Information Infrastructure, as well as to one of the three ARC/NHMRC Thinking Systems projects, and Capital Markets CRC.

Macquarie also enjoys enviable rankings. In the most recent Excellence in Research for Australia evaluation, our research in computation theory and mathematics received a rating of 'performance above world standard', and our research in artificial intelligence and image processing, and distributed computing received a rating of 'performance at world standard'.

As a higher degree research candidate at Macquarie, you will have the opportunity to research alongside some of the world's best scholars whose cutting-edge research continually pushes the boundaries of knowledge. You will also benefit from our working partnerships with many of the global IT companies neighbouring our campus.

mq.edu.au/research/information-and-computing-sciences

AREAS OF SPECIALISATION

- Algorithms and Cryptography
- Big data Analytics
- Business Process Management
- Category Theory
- Computer and Network Security
- Computer Games
- Cyber Security
- Image Processing and Computer Vision
- Information Systems
- Intelligent Systems and Knowledge Management
- Internet of Things, Digital Health and Smart Cities
- Machine Learning
- Natural Language Processing
- Programming Languages
- Service Computing and Cloud Computing
- Social Computing
- Software Verification
- Trust Management
- Virtual Reality

RESEARCH HUBS

- Centre for Advanced Computing
- Centre for Language Sciences
- Centre for Language Technology
- Centre of Australian Category Theory
- Intelligent Systems Group
- Optus Macquarie Cyber Security Hub
- Programming Languages and Verification Group
- Sustainable Software and Systems Group
- Virtual and Interactive Simulations of Reality

FIND OUT MORE
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